

In paragraph 4 of the Office Action the Examiner has objected to Figure 2 because the phrase, "to butter control ckt" is confusing. Applicants have amended the phrase in Figure 2 to read, "to buffer control circuit" and respectfully request that the objection to Figure 2 be withdrawn. A copy of Figure 2 with a redline correction is attached hereto in a separate amendment to the drawings.

In paragraph 5 of the Office Action the Examiner has noted that page one of the specification contains a reference to U.S. Patent Application Serial No. 09/445,217. The Examiner stated that he was unable to locate this application. Applicants submit that the serial number is correct and enclose herewith a copy of the filing receipt, and a copy of the claims pending in the U.S. Applicants submit that there is no conflict between the claims pending in the current application and its parent application. Applicants respectfully request that the Examiner review and approve of this issue.

In paragraph 7 of the Office Action the Examiner has rejected claim 2 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Applicants have amended claim 2 and respectfully submit that the amended claim complies with the requirements of 35 U.S.C. § 112, and, as such, request that the rejection of this claim be withdrawn.

In paragraph 9 of the Office Action the Examiner has rejected claims 1-12 under 35 U.S.C. 102 as being anticipated by Bentley et al. (U.S. Patent No 5,363,252). The Examiner contends that Bentley teaches all of the elements of the present invention.

Applicants disagree with the Examiner's contentions and respectfully submit the following remarks in response.

The present inventions is directed to a data reproduction apparatus comprised of a synchronization information detection circuit for detecting synchronization information of a block to be reproduced from a recording medium in which a series of data string which have synchronization information added thereto is recorded as a block to produce a synchronization information detection signal.

A block end position calculation circuit is provided for calculating an end position of the block on the recording medium on a basis of the synchronization information detection signal. A data reproduction circuit is also provided for reading out data recorded from the detected synchronization information to the calculated end position of the block from the recording medium to reproduce the data.

In this configuration, as discussed on page 48 of the specification, the present invention is provided with the ability to calculate the exact end position of the block on the recording medium on the basis of the synchronization information detection signal without influence from the reproduction delay time. This ability is facilitated because the synchronization information detection signal is produced from the synchronization information detection means which produces the output without substantial delay. Using this technology additional PAD (Pad Information) area is not required to provide an additional area longer than the reproduction delay time in the end of the block in order to ensue that the data reproduction means reads out information from the block from the recording medium, thus allowing the additional area to be minimized increasing the effective storage area of the disk.

The cited prior art, namely Bentley, teaches a method and system for track skew tolerance acquisition burst sequence validation in a data storage system. As discussed in column 5, line 57 of Bentley, "the so-called ending burst sequence may be examined in storage formats

in a symmetrical fashion.” This configuration requires a format in order to determine an end position.

Bentley continues to teach in column 8, lines 31 that an end of block timer (EOB) is initiated, and in column 10, line 47, Bentley teaches that the position of a succeeding inter block gap may be determined by using the EOB timer. In this configuration Bentley intends to detect an acquisition burst sequence continuously irrespective of increase of skew of plural tracks as discussed in the abstract and the summary.

key definition Contrary to the Examiner's contentions there are no teachings or suggestions in Bentley which disclose the present invention as claimed. For example, there is no teaching or suggestion in Bentley which discloses a block end position calculation circuit for calculating an end position of the block on the recording medium on a basis of the synchronization information detection signal. As clearly described above there is no suggestion in Bentley to use a synchronization information detection signal to calculate the end position of a block. In fact, Bentley teaches the use of EOB timer which operates based on the detection of an ending burst sequence.

Likewise, there is no teaching or suggestion in Bentley, which discloses a data reproduction circuit for reading out data recorded from the detected synchronization information to the calculated end position of the block from the recording medium to reproduce the data. In sharp contrast to Bentley which reads out data from a starting point to a *later detected* end of block position, the present invention, as claimed, reads out data from a starting synchronization information point to a *calculated* end point which leads to a more efficient use of disk space.


In view of the foregoing Applicants believe that the present application is deemed allowable in view of the prior art and respectfully request that the rejection of claims 1-12 under 35 U.S.C. § 102 be withdrawn. As such, Applicants submit that independent claims 1, 8, 9, 10

and 12 each of which contain an element of calculating the end block position from the synchronization data and dependent claim 2-7 and 11 which depend therefrom are now in condition for allowance, the earliest possible notice of which is earnestly solicited. If the Examiner feels that a telephone conversation would help expedite the prosecution of this application he is invited to contact the undersigned at the number listed below.

Respectfully Submitted

SOFER & HAROUN

By:



Joseph Sofer
Reg No 34,438
342 Madison Avenue
Suite 1921
New York, NY 10173
(212) 697-2800

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